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Published:

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DENDRIMER CONJUGATES FOR SELECTIVE OF PROTEIN AGGREGATES

(57) Abstract: Dendrimer conjugates are presented, which are formed between a dendrimer and a protein solubilising substance. Such dendrimer conjugates are effective in the treatment of protein aggregate-related diseases (e.g. prion-related diseases). The protein solubilising substance and the dendrimer together show a protein aggregate solubilising effect higher than a physical mixture of the dendrimer and the protein solubilising substance (i.e. a synergistic effect). Such dendrimer conjugates are useful in the treatment or prevention of protein aggregate-related diseases, in disinfection/decontamination processes and in classifying or identifying protein aggregates. The synthesis of such dendrimer conjugates from readily-available starting materials is described.

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INTERNATIONAL SEARCH REPORT

Application No

PCT/DK 03/00812

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K47/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, EMBASE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SUPATTAPONE S ET AL: "Branched polyamines cure prion-infected neuroblastoma cells." JOURNAL OF VIROLOGY. APR 2001, vol. 75, no. 7, April 2001 (2001-04), pages 3453-3461, XP002249542 ISSN: 0022-538X abstract	1-48
X	WO 00/72851 A (SCOTT MICHAEL R ; UNIV CALIFORNIA (US); PRUSINER STANLEY B (US); SUPAT) 7 December 2000 (2000-12-07) page 26, line 30 - page 27, line 22; claims ----- -/--	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *A* document member of the same patent family

Date of the actual completion of the international search

18 February 2004

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25/02/2004

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 03/00812

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/054736 A (SCOTT MICHAEL R ; UNIV CALIFORNIA (US); PRUSINER STANLEY B (US); SUPAT) 2 August 2001 (2001-08-02)	1
Y	page 7, line 6 - line 48; claims 1,3-5,9; examples 14,15	1-48
X	SUPATTAPONE SURACHAI ET AL: "Elimination of prions by branched polyamines and implications for therapeutics." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 96, no. 25, 7 December 1999 (1999-12-07), pages 14529-14534, XP0002186756 ISSN: 0027-8424 abstract; figure 2	1-48
Y	CALLAHAN M A ET AL: "Reversibility of scrapie-associated prion protein aggregation." THE JOURNAL OF BIOLOGICAL CHEMISTRY. 27 JUL 2001, vol. 276, no. 30, 27 July 2001 (2001-07-27), pages 28022-28028, XP0001094078 ISSN: 0021-9258 abstract	1-48
Y	US 4 587 329 A (DEWALD JAMES R ET AL) 6 May 1986 (1986-05-06) column 6, line 12 - line 19	1-48
Y	WINKLHOFFER K F ET AL: "A sensitive filter retention assay for the detection of PrP<Sc> and the screening of anti-prion compounds" FEBS LETTERS 10 AUG 2001 NETHERLANDS, vol. 503, no. 1, 10 August 2001 (2001-08-10), pages 41-45, XP002249545 ISSN: 0014-5793 abstract	1-48
P,Y	WO 03/000877 A (HOFFMANN LA ROCHE ; ROCHE DIAGNOSTICS GMBH (DE)) 3 January 2003 (2003-01-03) claims 1,9,13; example 5	1-48
A	MARSTON ET AL ABELSON J N ET AL: "Solubilization of Protein Aggregates" GUIDE TO PROTEIN PURIFICATION, METHODS IN ENZYMOLOGY, SAN DIEGO, ACADEMIC PRESS, US, vol. VOL. 182, 1990, pages 264-276, XP002900804 page 267; table 1	1-48

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 03/00812

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 37,40 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 03/00812

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